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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/614,582	07/07/2003	Dennis A. Kramer	60130-1625; 02MRA0367	7654

26096 7590 07/14/2004  
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EXAMINER

WILLIAMS, THOMAS J

ART UNIT	PAPER NUMBER
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3683

DATE MAILED: 07/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/614,582

Applicant(s)

KRAMER ET AL.

Examiner

Thomas J. Williams

Art Unit

3683

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-19 and 21-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13-15 is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-12, 16-19 and 21-23 is/are rejected.
- 7) ☒ Claim(s) 4 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. Acknowledgment is made in the receipt of the amendment filed May 20, 2004.

#### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3, 5, 9-12, and 16-20 are rejected under 35 U.S.C. 102(b) as being anticipated by US 4,392,558 to Heibel.

Re-claim 1, Heibel discloses a brake assembly comprising: a caliper (interpreted as part of housing 9, column 1 lines 12-13 and column 4 lines 22-27 describes the actuator used with a disc brake, which will include brake pads and a caliper as is known in the art); a brake actuator 3 (figure 1) is in communication with the first brake pad, the actuator comprises a first threaded member 21 rotatable about a first axis and a second threaded member 33 rotatable about a second axis; the first threaded member has first threaded characteristics 5 for moving the brake actuator at a first speed and a first force; the second threaded member has second threaded characteristics 7 for moving the brake actuator at a second speed and a second force; the first speed is greater than the second speed and the first force is lower than the second force (see column 4 lines 27-30 and lines 48-50). As understood by the examiner the first threaded member 21 is merely for moving the actuator quickly towards the rotor and the second threaded member 33 is responsible for applying the required brake force.

Art Unit: 3683

Re-claim 2, a first thread pitch 5 is greater than a second thread pitch 7, see column 3 lines 20-22.

Re-claim 3, the caliper has a first hole (defined by element 19) having threads about the same as the first thread pitch 5, the first hole rotatably receives the first threaded member.

Re-claim 5, the first axis is coaxial with the second axis.

Re-claims 6, 7, 21 and 22, the first threaded member and the second threaded member are initially coupled for movement, after which the second threaded member moves separately from the first threaded member after a predetermined condition. The condition is disclosed in column 4 lines 30-39.

Re-claim 8, the level of frictional resistance caused by clutch members 59 and 61 is the predetermined condition.

Re-claims 9 and 17, the shaft 1 is rotatable by any well known means, including an electric motor, which will be coupled to the second drive mechanism.

Re-claims 10-12, Heibel discloses a brake assembly, comprising: a brake; a brake actuator; a first drive mechanism 21; a second drive mechanism 33; a first speed of the first drive mechanism is faster than a second speed of the second drive mechanism, a first force is lower than a second force; a first threaded member 21 has first thread characteristics 5, a second threaded member 33 has second thread characteristics 7, wherein the second drive mechanism is configured to drive the brake actuator 3 as a consequence of the brake engaging the brake actuator; a first thread pitch 5 is greater than a second thread pitch 7, see column 3 lines 14-22 and column 4 lines 22-39. The first drive mechanism is designed to take up slack between the

Art Unit: 3683

brake actuator and the brake (associated with shaft 65), after which the second drive mechanism drives the brake actuator and applies a braking force to the disc.

Re-claim 16, the first drive mechanism is sequentially operable relative to the second drive mechanism.

Re-claim 18, Heibel discloses a method of braking, comprising: (1) moving a brake actuator at a first speed and a first force; (2) moving the brake actuator at a second speed and at a second force; (3) applying the brake actuator to a brake pad, the first speed is faster than the second speed and the first force is less than the second force, see column 4 lines 18-39, wherein the second step (2) or (b) occurs after a predetermined threshold is reached, see column 4 lines 30-39 in which the second drive mechanism only operates after a threshold is reached.

Re-claim 19, column 4 lines 22-23 discloses that the first step occurs first.

Re-claim 23, the brake in combination with shaft 65 creates the force on the brake actuator causing the second drive mechanism to drive the brake actuator.

#### ***Allowable Subject Matter***

4. Claims 13-15 are allowed.
5. Claim 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Response to Arguments***

6. Applicant's arguments filed May 20, 2004 have been fully considered but they are not persuasive. Heibel clearly discloses that the actuator is used with a disc brake system and brake pads. As is well known in the art a disc brake includes a caliper assembly. As such the 102

Art Unit: 3683

rejection is proper. The first thread pitch is provided on element 19 which is part of the caliper housing 19.

***Conclusion***

7. Any inquiries concerning this communication or earlier communications from the examiner should be directed to Thomas Williams whose telephone number is (703) 305-1346. The examiner can normally be reached on Monday-Thursday from 6:30 AM to 4:00 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Lavinder, can be reached at (703) 308-3421. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

TJW

July 7, 2004

THOMAS WILLIAMS  
PATENT EXAMINER

*Thomas Williams*

AK 3683

7-7-04